Rule DAS123: NON-DASD DEVICES CONTRIBUTED TO RPS DELAY

Finding: CPExpert has determined that non-DASD I/O devices were attached to a channel path of the volume experiencing missed RPS reconnect delays. These non-DASD I/O devices were busy a significant percent of the time and contributed to the RPS delay.

Impact: This finding can have a HIGH IMPACT on the performance of the device experience the missed RPS reconnect delays. *This finding applies only to legacy systems (e.g., 3380 devices attached to 3990-2 controllers).*

Logic flow: The following rules cause this rule to be invoked:

DAS100: Volume with the worst overall performance
DAS120: Missed RPS reconnect was major cause of I/O delay

Discussion: CPExpert determines whether any non-DASD I/O devices (e.g., tapes drives, etc.) share channel paths with DASD. If missed RPS reconnect delays were a major cause of I/O delay, CPExpert undertakes an analysis of the non-DASD I/O devices sharing channel paths. CPExpert examines the SMF Type 74 information to determine whether these non-DASD devices had a significant connect time to the path.

CPExpert uses a M/M/c queuing model to estimate the amount of missed RPS reconnect delay caused by the path utilization of the non-DASD devices.

Rule DAS123 is produced if the queuing model estimates that path utilization of the non-DASD devices causes more than 10% of the missed RPS reconnect delay.

Suggestion: CPExpert suggests that you eliminate or minimize the impact of the non-DASD I/O devices on the DASD performance by:

- Consider rescheduling the workload accessing the non-DASD I/O devices to a period when the data transfer would not cause DASD problems.
- Remove the non-DASD I/O devices from the channel paths serving the DASD devices. This may mean that you must acquire additional channel paths.

- If neither of the above options are feasible, consider placing only low-utilization (and non-critical) DASD on the paths shared with the non-DASD I/O devices.

